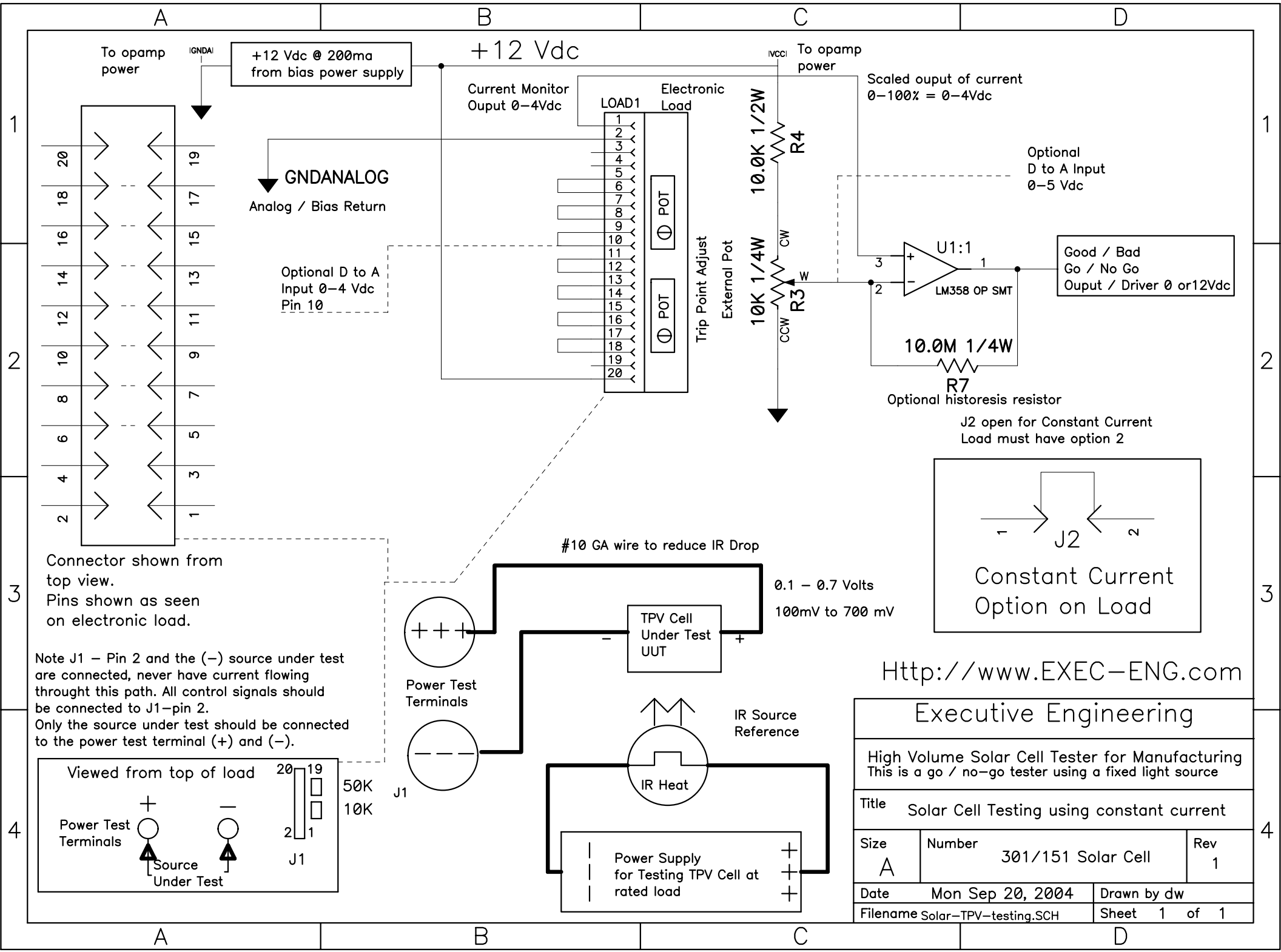
To opamp power
GNDA
+12 Vdc @ 200ma from bias power supply
+12 Vdc
VCC
To opamp power
Scaled ouput of current 0–100% = 0–4Vdc
Current Monitor Ouput 0–4Vdc
LOAD1
Electronic Load
GNDANALOG
Analog / Bias Return
Optional D to A Input 0–5 Vdc
Optional D to A Input 0–4 Vdc Pin 10
POT
POT
Trip Point Adjust
External Pot
10.0K 1/2W
R4
CW
10K 1/4W
R3
W
CCW
U1:1
LM358 OP SMT
Good / Bad
Go / No Go
Ouput / Driver 0 or12Vdc
10.0M 1/4W
R7
Optional historesis resistor
J2 open for Constant Current
Load must have option 2
J2
Constant Current Option on Load
Connector shown from top view.
Pins shown as seen on electronic load.
#10 GA wire to reduce IR Drop
0.1 – 0.7 Volts
100mV to 700 mV
TPV Cell Under Test UUT
Power Test Terminals
IR Source Reference
IR Heat
Power Supply for Testing TPV Cell at rated load
Note J1 – Pin 2 and the (–) source under test are connected, never have current flowing throught this path. All control signals should be connected to J1–pin 2.
Only the source under test should be connected to the power test terminal (+) and (–).
Viewed from top of load
Power Test Terminals
Source Under Test
50K
10K
J1
Http://www.EXEC–ENG.com
Executive Engineering
High Volume Solar Cell Tester for Manufacturing
This is a go / no–go tester using a fixed light source
Title
Solar Cell Testing using constant current
Size
A
Number
301/151 Solar Cell
Rev
1
Date
Mon Sep 20, 2004
Drawn by dw
Filename
Solar–TPV–testing.SCH
Sheet 1 of 1